

The Lattice

MEMBERS NOMINATE OUTSTANDING STUDENTS IN MINERALOGY FOR SOCIETY'S UNDERGRADUATE AWARD

MSA members have again taken advantage of the Society's American Mineralogist Undergraduate (AMU) Award program to recognize ten outstanding students who have shown an interest and ability in the discipline of mineralogy. Each student was cited by his or her department for outstanding achievement in mineralogy-related courses.

The AMU Awards allow MSA to join with individual professors to formally recognize outstanding students. Each student is presented a certificate at an awards ceremony at his or her university or college. In addition, each recipient receives a complimentary student membership, including the journal, for 1992.

The next deadline for nominating students for 1993 is January 1, 1993. For details contact the MSA Business Office or see the February 1992 issue of

The Lattice.

The Society welcomes these exceptional students to the program's honor roll and wishes to thank the sponsors for enabling MSA to recognize these outstanding individuals.

Charles L. Basso, Jr.
Michigan State University
Sponsored by Michael A. Velbel

Lanita D. Bishop
University of Illinois at Chicago
Sponsored by Stephen Guggenheim

Susan Ellsworth
Princeton University
Sponsored by Peter J. Heaney

Nicholas Brandon Kidd
Clemson University
Sponsored by Richard Warner

Anna Maria Licameli
Haverford College
Sponsored by William A. Crawford

Theresa Marks
Arizona State University
Sponsored by Peter Buseck

Stephen MacCormack
Acadia University
Sponsored by Sandra M. Barr

James J. Pfeiffer
University of Cincinnati
Sponsored by John Grover

Kristen Slater
University of Iowa
Sponsored by Barb Dutrow

Chris L. Werner
University of Pittsburgh
Sponsored by Edward G. Lidiak

NATO ADVANCED STUDY INSTITUTE FELDSPARS AND THEIR REACTIONS

Date: June 29 - July 10, 1993

Place: Edinburgh, United Kingdom

The Institute will treat the structure, microtextures, phase equilibria and kinetics, trace-element and isotope chemistry of feldspars, from the conditions of the upper mantle to diagenesis and weathering, under the guidance of 15 international experts.

Participation is open to scientists of any discipline resident in NATO countries and the newly independent countries of Central and Eastern Europe. Membership is limited to 80, which will include doctoral students and scientists selected by the Organizing Committee. Some financial support is available. Participants must stay for the entire meeting and may present research papers.

Deadline for application: January 31, 1993

Details and application forms: Director, Ian Parsons, Dept. Geology & Geophysics, The University of Edinburgh, Edinburgh, EH9 3JW, UK. Fax: 44 31 668 3184.

Organizing Committee: W.L. Brown, CRPG, Nancy, France; M.A. Carpenter, Earth Sciences, Cambridge University, UK; B.J. Giletti, Geological Sciences, Brown University, USA; W. Johannes, Institut für Mineralogie, Hanover, Germany.

J.D. Hanawalt Award

The JCPDS - International Centre for Diffraction Data takes pleasure in announcing that Professor Daniel Louër, Université de Rennes I, Rennes, France, has been selected to receive the J.D. Hanawalt Award for excellence in the field of powder diffraction. The presentation of the award will take place at the European Powder Diffraction Conference, EPDIC-2, Enschede, The Netherlands, July-August 1992.

From the President

Second 1992 MSA Council Meeting in Montreal

The second 1992 meeting of the Council of the Mineralogical Society of America was held in Montreal on May 10 at the spring AGU Meeting. Important actions include the following. Office Manager Susan Myers is undertaking a project to improve the corporate memory of the Society by summarizing important action items from previous minutes. This has already been done for financial matters, and the resulting document is serving the Society well. Treasurer Jim Whitney reported that the recent austerity measures have brought the MSA budget back into balance. Modest increases in dues, *American Mineralogist* subscription rates, and the price of *RiM* volumes will be necessary in 1993 in order for the Society to maintain a balanced budget. The Short Course on *Physical Properties of Minerals* planned for the San Francisco AGU Meeting has been cancelled for budgetary reasons.

The MSA Lecture Series for 1992-93 will include Jane Selverstone and Sorena Sorensen. In addition, and only for this year, Alexandra Navrotsky will participate in a special MSA Lecture Series cosponsored by the NSF Science and Technology Center for High Pressure Research.

Council is concerned about the necessarily high rejection rate for *American Mineralogist* mandated by the very high submission rate combined with budgetary constraints. A number of high quality reports have not been accepted primarily because of restrictions on the amount which can be published each year. Editors Steve Bohlen and Don Peacor have brought the publication time down to about a year for most papers, and now it has become necessary to take steps to reduce the rejection rate. A committee composed of the Editors and representatives of Council and the Publication Committee under the chairmanship of Paul Ribbe has been set up to recommend ways to: (1) increase the content of the Journal without increasing the number of pages or decreasing the quality; (2) reduce the cost of publication without decreasing

quality; (3) possibly restrict length of papers or in other ways encourage more brevity from authors; and (4) attempt to identify additional funds to increase the number of pages published per year. The Committee has been asked to report to Council at the GSA Meeting in October.

Maryellen Cameron is chairing the committee to examine the possibility of publishing an *RiM* volume on undergraduate mineralogy. Her committee has completed a limited survey on what kinds of material might be important for such a book.

Short Courses are planned for "High Resolution Transmission Electron Microscopy" to be convened by Peter Buseck and to be held October 23-25, 1992 in connection with the GSA National Meeting in Cincinnati, and "Health Effects of Mineral Dusts" to be convened by George Guthrie, co-sponsored by the USGS, to be held in connection with the 1993 GSA National Meeting in Boston. GSA Theme Sessions will be held on "High Resolution Transmission Electron Microscopy" in Cincinnati, 1992 (Peter Buseck coordinating), and "Cl and F in Fluid-Rock Interactions" in Boston, 1993 (Jean Morrison and James Munoz coordinating). A symposium on "Health Effects of Mineral Dusts" will be held in Boston, 1993 coordinated by George Guthrie.

This summer the membership elects a new President, a new Vice President, a new Treasurer, and two new Councilors. I look forward to great MSA and GSA Meetings in Cincinnati this October.

Michael J. Holdaway



President

The Lattice is published quarterly (February, May, August, November) by the Mineralogical Society of America. It is distributed to MSA members as a service. Articles and letters from readers are welcome.

The Mineralogical Society of America is composed of individuals interested in mineralogy, crystallography, and petrology. Founded in 1919, the Society promotes, through education and research, the understanding and application of mineralogy by industry, universities, government and the public.

Membership benefits include: the *American Mineralogist*, published bi-monthly; 30% discount on volumes in the *Reviews in Mineralogy* series; *The Lattice*; Membership Directory; special subscription rates for *Mineralogical Abstracts*, *Physics and Chemistry of Minerals*, *Journal of Petrology*, and *Journal of Metamorphic Geology*; reduced registration fees at MSA short courses; member rates for the MSA/Geological Society of America annual meeting and member rates at MSA's spring meeting with the American Geophysical Union; participation in a Society that supports the many facets of mineralogy.

Dues for 1992 are \$50 for professional members; \$30 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1992 will be sent all back issues of the journal for volume 77, 1992.

For additional membership information and an application, and/or to receive a price list of the Society's publications, contact the Business Office.

Institutions may subscribe to the 1992 volume of the *American Mineralogist* for the annual rate of \$200 in the US, \$205 in Canada and Mexico and \$210 in all other countries. The subscription price includes any new volumes of the *Reviews in Mineralogy* series published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

1992 President: Michael J. Holdaway
Southern Methodist University

Past-President: Malcolm Ross
U.S. Geological Survey

Vice President: Alexandra Navrotsky
Princeton University

Secretary: Stephen J. Guggenheim
University of Illinois

Treasurer: James A. Whitney
University of Georgia

Editor of The Lattice: Marta Flohr
USGS, 959 National Center
Reston, VA 22092

Office Manager/Accountant: Susan L. Myers

Mineralogical Society of America
1130 Seventeenth Street N.W., Suite 330
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Telephone: (202) 775-4344
FAX: (202) 775-0018

International Centre for Diffraction Data Crystallography Scholarship Awards

The International Centre for Diffraction Data (ICDD) intends to award two crystallography scholarships in 1993. The amount of each award is \$2000 and is intended to help defray tuition and laboratory fees.

Qualifications: A graduate student with major interest in crystallography (crystal structure analysis, crystal morphology, modulated structures, correlation of atomic structure with physical properties, systematic classification of crystal structures, phase identification and materials characterization). The term of the scholarship is one year, with one renewal if applied for by the recipient and if approved by the ICDD at the end of the first year on the basis of the student's written accomplishments during the first year.

Application: (a) A one-page proposal by the graduate student that describes the type of crystallographic research to be partially supported by the scholarship. (b) A supporting letter from the sponsoring professor of an accredited university or an institute of technology.

Deadline: October 31, 1992.

For additional information and to submit applications:
Secretary, International Centre for Diffraction Data
1601 Park Lane
Swarthmore, PA 19081-2389 USA

IMA Catalogue of Software for Mineralogists

The *IMA Catalogue of Software for Mineralogists*, edited by Dorian G.W. Smith, has been completed and is now available. The catalogue contains over 200 pages and nearly 900 software entries. The catalogue may be ordered from:

IMA (WGDCA)
c/o Professor Dorian G.W. Smith
Department of Geology
University of Alberta
Edmonton, Alberta
Canada T6G 2E3

Payment: U.S. \$25 + \$6 for postage and packing must be sent by international money order made out to "IMA (WGDCA)." **Because of banking charges, no other method of payment can be accepted.** The catalog can be shipped collect if proper authority and instructions are given; the shipping charge of \$6 does not apply to collect orders. Estimated delivery time is 6-8 weeks from receipt of order.

**THE DEADLINE FOR THE
NOVEMBER ISSUE OF *THE LATTICE*
IS OCTOBER 30TH**

WELCOME!

The following new members and students have joined MSA effective January 1, 1992. Welcome! Applications for membership may be obtained from the MSA Business Office, 1130 Seventeenth Street, N.W., Suite 330, Washington, D.C., 20036.

Baloch, Iftikhar Hussain, Geology Department, Univ of Leicester, Leicester, England LE1 7RH. O:(0533) 523636. (ST-92)MI. Sponsors: M.J. Le Bas and George Christidis.

Bhatia, Sumer, 558 Van Horne Ave., North York, Canada, M2J 2V3. O:(416) 499-4065. F:(416) 663-7429. Sponsor: MSA.

Bridge, David, D. J., 613-2016 Fullerton Ave., N Vancouver, Canada, V7P 3E6. O:(604) 926-1865. (ST-92)EG. Sponsors: Lee A Groat and Mati Raudsepp.

Gorman, Caitlin, Beloit College, Box 978, 700 College Street, Beloit, WI 53511. H:(608) 363-4827. Sponsor: Stephen G. Weaver.

Hameon, Ariel, Chapman & Hall, 29 West 35th St, New York, NY 10001. O: (212) 244-3336 ext 324. F:(212) 563-2269. (M-92)MI. Sponsor: MSA.

Hauth, David D., Univ of Alberta, Dept of Geology, Edmonton, Canada, T6G 2E3. H:(403) 434-3685. (ST-92)IP. Sponsors: Thomas Chacko and Robert Luth.

Neves, Luis P. F., Universidade Coimbra, Dept Ciencias Da Terra, Coimbra, Portugal, 3049. O:(39) 23022/55. F:(39) 37711. (M-92)MI. Sponsor: MSA.

Rancourt, Denis G., Dept of Physics, Univ of Ottawa, Ottawa, Canada K1N 6N5. O:(613) 564-8279. F:(613) 564-6712. (M-92)MI. Sponsor: Stephen Guggenheim.

Rivaud, Lydia, 20 Revolutionary Rd., Ossining, NY 10562. O:(914) 941-7450. F:(914) 941-7858. (M-92)MI. Sponsor: MSA.

Tepper, Jeffrey H., Geology Dept, Union College, Schenectady, NY 12308. O:(518) 370-6518. F:(518) 370-6789. (M-92)IP. Sponsors: Guy L. Hovis and Kurt Hollocher.

Vandenberghe, Luc, Avenue De La Croix Rouge 15, Braine-L'Alleud, Belgium, B 1420. O:(32)23844922. (M-92)MI. Sponsors: Michel Deliens and Henri Dillen.

Venezky, Dina, Y., 206 Hullihen Drive, Newark, DE 19711. O:(302) 366-0155. (ST-92)IP. Sponsors: John B. Brady and John T. Cheney.

Watkeys, Michael K., Univ of Natal, Dept of Geology, Durban, South Africa, 4001. O:(031) 816-2519. F:(031) 816-2280. (M-92)IP. Sponsor: MSA.

White, Joseph C., Dept of Geology, Univ of New Brunswick, Fredericton, Canada E3B 5A3. O:(506) 453-4804. F:(506) 453-5055. (M-92)CC. Sponsors: John Todd Dunn and Lowell T. Trembath.

MSA Short Courses

Minerals and Reactions at the Atomic Scale - High Resolution Transmission Electron Microscopy

Date: October 23-25, 1992.

Location: Hueston Woods State Park Lodge, College Corner, Ohio.

Convener: Peter R. Buseck, Department of Geology and Chemistry, Arizona State University.

The goals of the course are to (a) provide a background into the TEM as a mineralogical tool, (b) give an introduction to the principles underlying its operation, and (c) explore mineralogical applications and ways in which electron microscopy can augment our knowledge of mineral structures, chemistry, and origin. Special attention will be devoted to mineralogical applications. The course will provide sufficient information to allow a mineralogist and petrologist to have an informed understanding of the data produced by transmission electron microscopy and to have enough knowledge and experience to undertake initial studies on his/her own.

We expect to have a modern TEM for hands-on demonstrations and exercises. An attempt will be made to examine prepared specimens brought to the short course by participants. We also hope to have PCs available to demonstrate computer simulations of diffraction patterns and images.

Speakers:

Peter Buseck: General principles of transmission electron microscopy

John Steeds: Principles I: Electron diffraction - SAED & CBED

Peter Self: Principles II: High-resolution image formation, simulation, and analysis

Donald Peacor: Inelastic interactions - EDS chemical analysis

Peter Buseck: EELS & electron channeling (ALCHEMI)

David Veblen: Non-stoichiometry, polysomatism, and reactions in minerals

Alain Baronnet: Poytypism & stacking disorder

Fred Allen: Phase definition by HRTEM

Donald Peacor: Diagenetic reactions & processes: Clays & shales

Richard Reeder: Carbonates

Johan deVilliers: Ore minerals

Donald Green: Analysis of deformation in geological materials

Gordon Nord: Imaging transformation-induced microstructures

This two and one-half day course will be held just prior to the 1991 Annual GSA and MSA meeting. The course will be held at the Hueston Woods State Park Lodge, located approximately 60 miles from the Cincinnati airport. Bus transportation will be arranged for participants. The course

will begin on Friday morning, October 23 and continue until noon on Sunday. The registration fee (see note, below regarding scholarships) includes the short course program and accompanying volume of the *Reviews in Mineralogy* series, three meals on Friday and Saturday, and lunch on Sunday, as well as daily coffee breaks. Accommodation at Hueston Woods is included in the registration fee.

Enrollment is limited to 100 on a first-come, first-served basis, so register early. See registration form elsewhere in this newsletter.

SHORT COURSE SCHOLARSHIPS

Gift funds make it possible to offer a limited number of scholarships to help support graduate students and perhaps postdoctoral associates who might not otherwise be able to attend the short course. The scholarship support will be applied to the registration fee, which covers meals and accommodation in a shared double or triple room, registration fee, and the RIM volume on *Mineralogical Electron Microscopy*.

To apply for a scholarship the applicant must send:

1. a letter explaining why support is needed;
2. a letter of recommendation from an advisor or supervisor;
3. a résumé and brief description of microscope related research underway or planned.

Deadline: SEPTEMBER 20, 1992

Send applications to: Short Course Organizer
Dr. Peter Buseck
Department of Geology
Arizona State University
Tempe, Arizona 85287-1704

Cancellation of MSA Short Course

The MSA short course, *Physical Properties of Minerals*, which had been scheduled for December 4-6, 1992, has been cancelled for budgetary reasons.

Registration Form

MSA Short Course

Minerals and Reactions at the Atomic Scale: High Resolution TEM October 23-25, 1992

Return this registration form, completed, to the MSA Business Office, 1130 17th Street, N.W., Suite 330, Washington, D.C. 20036. FAX: (202)775-0018. Payment must accompany this form. Registration is limited to 100 individuals on a first-come, first-served basis. Please type or print.

Name _____
(first) (middle initial) (last)

Address _____

(city) (state) (zip/postal code) (province) (country)

Telephone numbers _____ (office) _____ (fax)

Please circle the appropriate registration category.

PRICES INCLUDE ALL LODGING AND MEALS

	Member	Non-Member
Professional: in double room	\$475	\$525*
Student: in double room	\$225	\$255*

*includes MSA dues for 1992.

Please check method of payment:

___ Enclosed is a check or money order in the amount of \$ _____.

___ Please charge my ___ Visa ___ Mastercard

___ Diner's Club ___ American Express card in the amount of \$ _____.

(Your credit card will be charged when the registration form is received.)

(card number) (name on card--please print)

(signature) (exp. date)

Please list any special requirements regarding meals.

MEETING CALENDAR 1992-1993

1992

September

9-15 "The Transition from Basalt to Metabasalt: Environments, Processes, and Petrogenesis," a symposium to be held at Davis, California. *Details:* Peter Schiffman, Dept. of Geology, University of California, Davis, CA 95616. Telephone: (916) 752-3669; PSchiffman@UCDavis.edu.

October

9-11 The 84th Annual Meeting of the New England Intercollegiate Geological Conference will be held in Amherst, Massachusetts. Three days of field trips in the Connecticut Valley region covering Paleozoic stratigraphy, tectonics, and metamorphism; Mesozoic stratigraphy, basalt petrology, and paleomagnetism; Quaternary stratigraphy, hydrogeology, and hydrogeochemistry are planned. *Details:* George McGill, Dept. Geology and Geography, U. Massachusetts, Amherst, MA 01003. Telephone: (413) 545-0140; FAX: (413) 545-1200; e-mail: gmcgill@wawa.geo.umass.edu.

November

1-6 29th Annual Meeting of the Clay Minerals Society (joint meeting with the Soil Science Society of America) in Minneapolis, MN. *Details:* Wayne Hudall, Dept. of Agronomy, Louisiana State University, Baton Rouge, LA 70803. Telephone: (504) 388-1344.

November-December

30-4 Annual Fall Meeting of the Materials Research Society, Boston, MA. *Details:* Materials Research Society, Meetings Dept., 9800 McKnight Road, Pittsburgh, PA 15237 USA. Telephone: (412) 367-3003; FAX: (412) 367-4373.

December

7-11 AGU Fall Meeting, San Francisco, CA. *Preregistration deadline:* November 6, 1992. *Abstract deadline:* September 10, 1992. *Details:* AGU Meetings Dept. Telephone: (202) 462-6910.

14-16 Mineralogical Society of Great Britain Winter Meeting on Mineralogical Applications of Surface Science and short course, to be held at the University of Manchester. *Details:* Prof. D.J. Vaughan, Dept. of Geology, University of Manchester, Manchester M13 9PL Great Britain. Telephone: 061-275-3895; FAX: 061-275-3947.

1993

February

13 14th Mineralogical Symposium (topic: garnet); *Abstract deadline:* September 30, 1992. *Details:* Dr. Karen Wenrich, U.S. Geological Survey, MS 939, Federal Center, Denver, CO 80225. Telephone: (303) 236-1563.

April

1-2 "Rare Earth Minerals: Chemistry, Origin, and Ore Deposits" in London, UK. *Details:* Ms. Frances Wall, Dept. of Mineralogy, The Natural History Museum, Cromwell Road, London SW7 5BD, UK. FAX: 4471 938 9268.

12-16 Annual Spring Meeting of the Materials Research Society, San Francisco, CA. *Abstract deadline:* November 15, 1992. *Details:* Materials Research Society, Meetings Dept., 9800 McKnight Road, Pittsburgh, PA 15237 USA. Telephone: (412) 367-3003; FAX: (412) 367-4373.

May

17-19 Joint meeting of the Geological Association of Canada and the Mineralogical Association of Canada, Edmonton, Alberta. *Details:* J.W. Kramers, Alberta Geological Survey, P.O. Box 8330, Station F, Edmonton, Alberta T6H 5X2, Canada. Telephone: (403) 438-7644; FAX: (403) 438-3364.

(Meeting Calendar continued on next page)

Members in the News

George E. Ericksen, U.S. Geological Survey, was awarded the Medalla al Merito Minero (Medal for Meritorious Service to Mining) by the government of Bolivia.

Gerald M. Friedman, Brooklyn College and Graduate School of the City of University of New York, was conferred Honorary Membership in the Geological Society of Israel. Professor Friedman was cited for his contribution to research in the carbonate rocks of Israel. He received the award at the Society's annual convention in Ashkelon, Israel, April 1992.

David M. Sherman, Pacific Northwest Lab, Molecular Science Research Center, received the F.W. Clark Award of the Geochemical Society. He received the award for his research on the electronic structures of minerals and their applications to geochemical problems.

Results of Election of Officers and Directors JCPDS - International Centre for Diffraction Data March 1992

Chairman - Gerald G. Johnson, Jr.

Vice Chairman - Jan W. Visser

Treasurer - Gerhard R. Fischer

Chairman, Technical Committee -

Ting C. Huang

Members-at-Large, Board of

Directors - Thomas N. Blanton,

Walter Eysel, James A Kaduk,

Melvin H. Mueller, Robert L.

Snyder

Past Chairman - Ludo K. Frevel.

IN MEMORIAM

We regret to announce the passing of the following MSA member. The Society extends its condolences to the family and friends of this scientist.

Roy, Chalmer J.
Life Fellow, 1949

MEETING CALENDAR (continued)

1993

May

24-28 Joint AGU/MSA Spring Meeting, Baltimore, MD.

May-June

31-4 ICAM'93 - "Mineralogy in the Service of Man." Applied Mineralogy Conference in Perth, Western Australia (dates include workshops). *Details:* Jim Graham, Division of Mineral Products, CSIRO, Private Bag, P.O. Wembley, 6014, Western Australia. Telephone: (61)(9) 387 0371.

July

5-16 IGCP Project 294 thematic meeting **Very low grade metamorphism: Mechanisms and geologic applications** in Xi'an, China, plus related field excursions to the Erdos Basin and the North Qilian Mountains. *Convenor:* Dr. Wu Hanquan, Xi'an Institute of Geology and Mineral Resources, 116 Easy Youyi Road, Xi'an 710054, P.R. China.

September

8-17 Symposium on **Layering in Igneous Complexes**, Johannesburg, South Africa. *Details:* Prof. R. Grant Cawthorn, Dept. Geology, University of the Witwatersrand, Private Bag 3, PO Wits 2050, Republic of South Africa. Telephone: 011 716 2711 or 011 716 2608; Fax: 011 339 1697 or 011 403 1926.

November

15-30 IGCP Project 294 thematic meeting **Low temperature metamorphism: Processes, products, and economic significance**, Santiago, Chile. *Convenor:* Professor M. Vergara, Universidad de Chile, Department de Geologia y Geofisica, Casilla 13518-Correo 21, Santiago, Chile. Fax: 56 2 6963050.

Attention Fluid Inclusion Researchers

A worldwide register of persons involved in fluid inclusion research will be published under the aegis of IMA (Dr. B. De Vivo and Dr. K. Török) and IAGOD (Dr. R.J. Bodnar). Please complete the questionnaire and return to: Harvey E. Belkin, 959 National Center, U.S. Geological Center, Reston, VA 22092 (Fax: 703 648-4227). Respondents will receive a free copy of the register.

Name: _____

Title: _____

Address: _____

Telephone: _____ FAX: _____ E-mail: _____

Laboratory facilities:

Research interests:

Positions available in your lab: graduate students, post doctoral researchers, visiting scientists, etc.

Samples and (or) other information: e.g., available computer programs/standards for microthermometry and analysis, samples with unusual or representative or classic examples.

Remarks, ideas, suggestions:

MSA ACTIVITIES AT GSA

Each year MSA and other associated societies of the Geological Society of America (GSA) work together prior to the annual meeting to review and select abstracts and schedule symposia and poster sessions. It is the combined efforts of these individuals that consistently produce a quality meeting. Special thanks are due this year to MSA representative David L. Bish, Los Alamos National Laboratory, conferee John E. Grover, University of Cincinnati and abstractor Craig Schiffries, American Geological Institute.

In addition to handling the review of abstracts and scheduling technical sessions, the MSA representative coordinates with the Business Office to schedule the Society's social activities. This cooperation, in conjunction with GSA staff, keeps Society activities from overlapping technical sessions and attempts to put these activities in conveniently located meeting rooms.

While this scheduling involves many individuals, its purpose is to benefit the members of MSA. To this end, you are encouraged to participate in the MSA sponsored activities and to express your suggestions and needs to the Business Office and GSA.

Third Meeting, 1992 Council

Sunday, October 25
Omni Netherland Plaza
7:30 a.m. - 5:30 p.m.

The 1992 Council will act on recommendations from the Nominating Committee for Fellows, the Roebling Medal Committee, the MSA Award Committee, and the Research Grant (Mineralogy/Petrology) Committee at its final meeting. The report of the Tellers Committee will also be certified. Council actions will be announced at the Business Meeting on Tuesday, October 27.

MSA Booth, #473-475

Sunday, October 25
6:00 p.m. - 9:00 p.m.
Monday, October 26
8:00 a.m. - 5:00 p.m.
Tuesday, October 27
8:00 a.m. - 5:00 p.m.

Wednesday, October 28

8:00 a.m. - 3:00 p.m.

Be sure you visit the MSA booth at the Cincinnati Convention Center. The newest volume in the *Reviews in Mineralogy* series on *Mineralogical Electron Microscopy* will be available, as will the other books in the series. Stop by and talk to other members, meet Society officers, the MSA Business Office staff and the managing editor of *American Mineralogist*. Bring a friend who should be a member of the Society and we'll help you sign up him or her!

MSA Theme Session

Transmission Electron Microscopy in Mineralogy and Petrology
Monday, October 26
Cincinnati Convention Center
1:30 - 5:00 p.m.

Convener: Peter R. Buseck,
Arizona State University

Presidential Address and Annual Business Meeting

Tuesday, October 27
Cincinnati Convention Center

MSA President Michael J. Holdaway will give his presidential address, *Geothermobarometry in Pelitic Schists: A Rapidly Evolving Field*. The address will be followed by an open business meeting. MSA bylaws require that such a meeting be held annually whereby the membership is provided reports by the officers to familiarize themselves with Society activities. All members are encouraged to attend.

Annual Awards Luncheon

Tuesday, October 27
Hyatt Regency Cincinnati
12:15 - 2:00 p.m.

Hatten Yoder, recipient of the 1992 Roebling Medal and Jonathan Stebbins, recipient of the MSA Award for 1992 will be honored at this annual luncheon. Following these presentations, 1992 President Michael J. Holdaway will pass the gavel to the 1993 President and a new Council will take office. The Annual Luncheon provides members with

an opportunity to meet colleagues and to recognize outstanding contributors to the science.

MSA Reception

Tuesday, October 27
Omni Netherland Plaza
Continental Room
5:30 - 7:30 p.m.

All members and scientists interested in mineralogy, petrology and crystallography are invited to attend and enjoy a drink with colleagues. Again this year the reception is being held jointly with the Geochemical Society.

First Meeting, 1993 Council

Tuesday, October 27
Omni Netherland Plaza
7:45 - 11:00 p.m.

Members of the 1993 Council will hold a dinner meeting to set goals and priorities for the coming year. This is the first opportunity for new Council members to participate in the ongoing activities of Council.

1992 ANNUAL GSA/MSA MEETING CINCINNATI, OHIO OCTOBER 26-29

The 1992 Annual GSA/MSA Meeting will be held October 26-29 in Cincinnati, Ohio. Registration, housing and transportation information, the meeting registration form, the housing request form, and the abstracts volume order form are included in this newsletter (pages 9-14). Please consult the August 1992 issue of *GSA Today* for information regarding the technical sessions and other details. Information also may be obtained from the GSA Meetings Department: (303) 447-2020.

Registration

PREREGISTER TODAY!

PREREGISTRATION DUE: SEPTEMBER 25

1. There is a \$10-\$20 savings in registration fees if you register before the preregistration deadline. Advance registration is suggested for many of the special activities because of participation limits. Use the preregistration form provided in this announcement.
2. Badges must be worn for access to ALL activities and on the shuttle, 10:00 a.m. Sunday through 5:00 p.m. Thursday.
3. Registration discounts are given to both GSA and Associated Society members. Associated Societies that qualify for this discount are indicated on the registration form. Please indicate your affiliation(s) and member number to register using the member rates.
4. Full payment MUST accompany registration. Unpaid purchase orders are NOT accepted as valid registration. Charge cards are accepted as indicated on preregistration form. If using a charge card, please recheck the card number given—errors will delay your registration. The confirmation card will be your receipt for charge card payments. No other receipt will be sent.
5. Register one professional or student per form. Copy the form for your records.
6. Guest registration is required for those attending guest activities, to attend technical sessions, or to visit the exhibit hall. Guest registrants MUST be accompanied by either a registered professional or student. A guest is defined as a non-geologist spouse or friend of a professional or student registrant.
7. CURRENT student ID is required to obtain student rates at both the on-site and preregistration counters. Students not carrying a current student ID when they arrive to pick up registration materials will be required to pay the professional fee.
8. Complimentary registration will be provided for K-12 science teachers. To register for the Science Teachers program or field trip, please contact Ed Geary, SAGE Program, GSA headquarters.
9. All preregistrations RECEIVED after the preregistration deadline of September 25 will automatically be charged the on-site rates.

Transportation

Getting To Cincinnati

By Air. The Greater Cincinnati International Airport is served by eight carriers offering more than 850 daily arrivals and departures; Delta Airlines is the major carrier into this airport. Downtown Cincinnati is approximately 12 miles (20 minutes) from the airport. Consider staying over Saturday night in Cincinnati for significant airfare savings.

GSA's official travel agent, Cain Travel Group, has negotiated excellent discounts with the major Cincinnati carriers. Cain can also assist you with the special discounts and coupon offerings in your area. Call today for the best availability.

To make a reservation, call Cain Travel and identify yourself as a GSA traveler. Tickets can be paid for by check (payable to Cain Travel), or by major credit card, or invoiced to your company. Final payment must reach Cain Travel no later than 10 days prior to departure to allow for mailing time. All tickets will be mailed via certified mail upon receipt of payment unless requested otherwise. After tickets are issued, you are protected from fare increases; if a fare decreases, call Cain Travel for an adjustment.

Students: The GSA Foundation has awarded matching grants to each of the six GSA sections to assist students wishing to travel to GSA section and annual meetings. For applications, contact individual section secretaries or call GSA headquarters.

As with all airline reservations, please use caution regarding change and cancellation penalties that accompany low-fare tickets. This especially applies to field trip participants whose trips may be canceled after the September 25 preregistration deadline. Be sure you understand the restrictions on the type of ticket you purchase.

Cain Travel will have an on-site Customer Service Desk at the Cincinnati Convention Center during the meeting.

By Car. Cincinnati is located along major north-south Interstate Highways I-75 and I-71, and at the eastern terminus of Interstate I-74. We are aware of the economic constraints imposed on some people. Participants should consider car pooling or using vans to save on transportation costs.

By Train and Bus. Amtrak passenger trains provide service to and from Cincinnati. Greyhound and Trailways provide bus service into Ohio. Call the offices in your area to get the best rates and schedules.

Getting To Your Hotel

The Greater Cincinnati International Airport is 12 miles from the Convention Center downtown. The only GSA hotel offering its own shuttle van is the Quality Hotel Riverview in Kentucky. Since the other properties do not offer shuttle service, your transportation options are as follows:

Jet'Port Express. This bus service operates from 5:30 a.m. to 10:00 p.m. daily. To purchase a ticket go to one of the Jet'Port Express ticket counters located in the baggage claim area at the airport. Look for the GSA signs. A ticket agent will give you instructions on where to board the Jet'Port Express. Buses depart every half-hour. Cost: \$12 round trip, \$10 one way. Jet'Port Express does NOT stop at any of the GSA properties in Kentucky. If you are staying at one of the Kentucky properties, consider taking Jet'Port to downtown Cincinnati and from there take a cab to your Kentucky hotel for approximately \$5.

From your hotel to the airport. The Jet'Port Express departs every half hour from the Hyatt Regency and Omni hotels. Jet'Port also provides service from the Clarion, Terrace Hilton, Westin, and Holiday Inn—Queensgate hotels. No reservation is necessary. For scheduling information call (806) 283-3702. Cost: \$12 round trip, \$10 one way.

Taxis. Several taxicab companies serve the city of Cincinnati. All vehicles are

Registration Fees

	Advance (by Sept. 25)	On-Site	One-Day
Professional—Member	\$150	\$170	\$ 85
Professional—Nonmember	\$190	\$210	\$105
Student—Member	\$ 60	\$ 70	\$ 35
Student—Nonmember	\$ 80	\$ 90	\$ 45
Guest	\$ 65	\$ 75	N/A

On-Site Registration Schedule

CINCINNATI CONVENTION CENTER, ELM STREET LOBBY

*Friday, October 23	1:00 p.m. to 5:00 p.m.
*Saturday, October 24	7:30 a.m. to 2:00 p.m.
Saturday, October 24	12:00 noon to 2:00 p.m.
Sunday, October 25	10:00 a.m. to 7:00 p.m.
Monday, October 26	7:30 a.m. to 5:00 p.m.
Tuesday, October 27	7:30 a.m. to 4:00 p.m.
Wednesday, October 28	7:30 a.m. to 2:00 p.m.
Thursday, October 29	7:30 a.m. to 11:30 a.m.

*PREREGISTRANTS ONLY

Cancellations, Changes, and Refunds

All requests for registration additions, changes, and cancellations must be made in writing and received by October 2. GSA will refund advance registration fees for cancellations received in writing by October 2. NO REFUNDS WILL BE MADE ON CANCELLATION NOTICES

RECEIVED AFTER THIS DATE. Refunds will be mailed from GSA after the meeting. Refunds for fees paid by credit card will be credited according to the card number on the preregistration form. NO refunds for on-site registration and ticket sales.

metered and regulated. Charges in the downtown area are approximately \$1.50 for the first mile and \$1.20 for each mile thereafter. Approximate cost from the airport to downtown is \$20.

Car Rental. Alamo is the official car rental agency for the meeting. Identify yourself as a GSA delegate by giving Group I.D.#: 85204 and Plan Code: GR to get guaranteed, discounted, daily/weekly rates as follows: economy \$27/\$109; compact \$29/\$129; mid-size \$31/\$149; standard \$33/\$169; premium \$35/\$189; luxury \$37/\$209. An additional convention discount may be available by having your Alamo agent check Rate Code 7G. Unlimited mileage. Follow the "Courtesy Shuttle Pick-Up" signs posted in the baggage level at the airport. Look for the blue and yellow Alamo vans. Advance reservations are recommended. Call Alamo at 1-800-732-3232.

Getting Around In Cincinnati

An excellent freeway system makes travel by car easy. Transit Authority of

Northern Kentucky (TANK) provides bus transportation between northern Kentucky and downtown Cincinnati. Queen City Metro serves the suburban areas, and the Downtowner provides bus access to the downtown area. There is also a trolley that provides limited transportation throughout downtown and across the river.

GSA Shuttle. Rain or shine, access is easy from the downtown hotels to the Cincinnati Convention Center. Most hotels are within walking distance and accessible through the skywalk system that connects the downtown hotel properties, shopping malls, and the Cincinnati Convention Center. A free GSA shuttle will be provided to the hotels on the Kentucky side of the river and to the one Cincinnati hotel located several blocks from the Convention Center, Holiday Inn-Queensgate. The shuttle will operate all day and into the evening beginning 6:30 a.m. on Sunday, October 25 and ending Thursday, October 29. Shuttle schedules will be posted at the Convention Center and participating hotel lobbies.



**RIISING AIRFARES?
BEAT THEM WITH DISCOUNTS!**

Call CAIN TRAVEL GROUP today
(official travel agency for the Cincinnati meeting)

Cain offers up to 40% off coach, will meet or beat any fare quote, and will handle the special discount fares advertised in your area.

1-800-346-4747 toll-free
(303) 443-2246 collect from outside U.S., fax 303-443-4485
8:30-5:30 MST, Monday through Friday

You can't lose. Book today. If airfares drop, Cain will automatically reissue your ticket at the lower rate!

BEAT THE HIGH PRICES. CALL CAIN TODAY.

HOTEL LISTING

Please make your reservation with the Cincinnati Housing Bureau.

Note: All rooms are subject to occupancy tax, which is 10% in Ohio and 9.18% in Kentucky. Hotels serviced by the GSA shuttle.

◆ **OMNI NETHERLAND PLAZA (Co-Headquarters)**
35 W. Fifth Street, Cincinnati, OH 45202
(513) 421-9100 (375-room block)
1 block from the Convention Center

Convenient, quick, and enclosed walkways to the Convention Center. This magnificent French art deco landmark hotel, built in the early 1930s and restored in the 1980s, takes you back in time. All sleeping rooms have recently been completely renovated. The Omni's Palm Court lobby offers one lounge and two restaurants, including the award-winning Orchids. The hotel is part of the Carew Tower complex, which offers more than 60 fine shops, restaurants, and entertainment options. The Carew Tower Health and Fitness Club offers full-service, high-tech training equipment, and lap pool to Omni guests for \$3 per day. Guest services staff, and public and valet parking are available for \$8 and \$12.50 respectively.

Check-in: 3:00 p.m. Check-out: 12:00 noon CC: AX, DC, MC, V

◆ **HYATT REGENCY CINCINNATI (Co-Headquarters)**
151 W. Fifth Street, Cincinnati, OH 45202
(513) 579-1234 (350-room block)
1/4 block from the Convention Center

Located directly adjacent to the Convention Center through an enclosed walkway, the 22-story Hyatt offers convenience, comfort, and excellent Hyatt service. Surrounding the garden atrium lobby, the hotel features two restaurants for casual to elegant dining, and two cocktail lounges for relaxation. Recreational facilities include an exercise room, whirlpool, heated indoor pool, and sauna. Saks 5th Avenue is connected to the Hyatt for a world of shopping. Concierge, laundry, and gift shop. Valet and self-parking start at \$7 per day.

Check-in: 3:00 p.m. Check-out: 12:00 noon CC: AX, D, DC, MC, V

③ CLARION

141 W. Sixth Street, Cincinnati, OH 45202
(513) 352-2100 (750-room block)
0 blocks from the Convention Center

Leave the Clarion via the enclosed skywalk and immediately enter the Convention Center. You couldn't stay any closer. The hotel offers dining for everyone's taste, from the 31-story revolving restaurant with a spectacular evening view, to a quick snack for meeting attendees on the go, or room service. Leisure activities include complimentary use of Moore's Fitness World, one of the most up-to-date health facilities downtown. Valet parking is \$6 for short term and \$11 for overnight.

Check-in: 3:00 p.m. Check-out: 11:00 a.m. CC: AX, C, DC, MC, V

④ WESTIN

At Fountain Square, Cincinnati, OH 45202
(513) 621-7700 (200-room block)
2 blocks from the Convention Center

The excellence and quality of the Westin name hold true at this lovely property. Enjoy award-winning specialties in their fine-dining restaurant as you view historic Fountain Square. The hotel also features a casual European-style restaurant for breakfast, lunch, and dinner. Live classical piano echoes through the bright atrium lobby and lounge. Enjoy the indoor pool and jacuzzi after a full day. The Westin is connected to the Convention Center and other downtown offerings by the skywalk system. Valet parking is \$12.50 and self-parking is \$8.

Check-in: 3:00 p.m. Check-out: 1:00 p.m. CC: AX, DC, MC, V

⑤ TERRACE HILTON

15 W. Sixth Street, Cincinnati, OH 45202
(513) 381-4000 (80-room block)
1-1/2 blocks from the Convention Center

High above the downtown bustle, the hotel lobby is on the eighth floor with quiet sleeping rooms above it. The hotel offers a casual restaurant serving all meals beginning at 8:30 a.m. daily. The health center is complete with whirlpool, sauna, and exercise equipment. The Hilton will begin a major renovation project in August, but this is not expected to affect GSA hotel guests. Valet parking is \$11.

Check-in: 3:00 p.m. Check-out: 1:00 p.m. CC: AX, C, D, DC, MC, V

⑥ HOLIDAY INN—QUEENSGATE

800 W. Eighth Street, Cincinnati, OH 45203
(513) 241-8860 (150-room block)
8 blocks from the Convention Center

This property has pleasant, comfortable rooms with free parking for hotel guests. The Holiday Inn has one restaurant that serves breakfast, lunch, and dinner at reasonable prices beginning at 8:30 a.m. daily. For evening entertainment visit the top-level lounge and enjoy the view and top-40 music hits.

Check-in: 2:00 p.m. Check-out: 12:00 noon CC: AX, MC, V

⑦ QUALITY HOTEL RIVERVIEW

866 W. Fifth Street, Covington, KY 41011
(808) 491-1200 (150-room block)
1 mile from the Convention Center

Directly off Interstate 75, the top of this 18-floor circular hotel affords beautiful views of the downtown Cincinnati skyline, the Ohio River, and the Mainstrasse area of Kentucky. The rooftop revolving restaurant offers reasonably priced lunch and dinner, while Kelly's on the main level offers a casual breakfast buffet. Recently remodeled, each room has its own private balcony. For relaxation, there is live music in the pub, a four-season glass-domed pool and sauna, or work-out in the fitness center. The hotel offers complimentary parking and airport shuttle. This property is *not* serviced by JetPort, so be sure to call the hotel van or have alternate plans.

Check-in: 3:00 p.m. Check-out: 12:00 noon CC: AX, D, DC, MC, V

⑧ HOLIDAY INN—RIVERFRONT

800 W. Third Street, Covington, KY 41011
(808) 291-4300 (75-room block)
1 mile from the Convention Center

The hotel restaurant which serves breakfast, lunch and dinner at reasonable prices, opens at 6:30 a.m. daily. In the evening there is a cocktail lounge plus live comedians performing nightly in the hotel's Funny Bone Comedy Club. A health club, free to hotel guests, is within a five-minute drive. JetPort airport transportation is not available to this property, and the hotel does *not* offer a shuttle; taxi ride from airport is approximately \$20. The hotel offers complimentary parking.

Check-in: 3:00 p.m. Check-out: 12:00 noon CC: AX, D, DC, MC, V

⑨ TRAVELODGE—RIVERFRONT

222 York Street, Newport, KY 41071
(808) 291-4434 (75-room block)
4 miles from the Convention Center

This hotel offers complimentary continental breakfast daily, newspaper in the lobby, and parking. Some rooms have showers only (no baths). Although there is no restaurant at this property, there are many reasonably priced restaurants and fast-food options within walking distance. This property is fairly new and recently renovated. JetPort airport transportation is *not* available, and the hotel does *not* offer a shuttle; taxi ride from airport is approximately \$24.

Check-in: 3:00 p.m. Check-out: 12:00 noon CC: AX, D, MC, V

Alternative Housing

Beating the high cost of housing is a high priority of GSA staff and the 1992 Annual Meeting Committee. Here are some alternatives:

- Call 1-800-555-1212 or check the Yellow Pages to learn the 800 number for your favorite hotel chains, such as Motel 8 or Comfort Inns, which have properties outside the downtown area. You will need to provide your own transportation.
- Check your library copy of the *Hotel and Motel Redbook*, which lists metro properties. Because of the hundreds of properties in the area (some good, some bad), GSA does not provide a general list.

Credit Card (CC) Codes: AX = American Express, C = Carte Blanche, D = Discover, DC = Diners Club, M = MasterCard, V = VISA.

GSA Official Housing Request Form

Your Housing Form must be received **BY FRIDAY, OCTOBER 2**. Please mail to: GSA Housing Bureau
300 W. 6th Street
Cincinnati, OH 45202

Only for last minute changes, cancellations, and information call the Cincinnati Housing Bureau at (513) 621-2119.

HOTEL PREFERENCE: Please number ALL hotels in preferred order.

# Is map reference	Single 1 bed/1 person	Double 1 bed/2 people	Double/Double 2 beds/2 people
_____ Omni Netherland Plaza ①	\$ 95	\$ 95	\$ 117
_____ Hyatt Regency ②	\$ 97	\$ 117	\$ 117
_____ Clarion ③	\$ 80	\$ 94	\$ 94
_____ Westin ④	\$ 94	\$ 94	\$ 94
_____ Terrace Hilton ⑤	\$ 73	\$ 73	\$ 73
_____ Holiday Inn—Queensgate ⑥	\$ 53	\$ 61	\$ 61
_____ Quality Hotel Riverview ⑦	\$ 55	\$ 60	\$ 60
_____ Holiday Inn—Riverfront ⑧	\$ 52	\$ 52	\$ 52
_____ Travelodge—Riverfront ⑨	\$ 41	\$ 45	\$ 45

Note: All rooms subject to tax: 10% Ohio, 9.18% Kentucky.

TYPE OF ACCOMMODATION NEEDED:

- | | |
|--|---------------------|
| _____ Single (1 person, 1 bed) | _____ 1 more person |
| _____ Double (2 people, 1 bed) | _____ 2 more people |
| _____ Double/Double (2 people, 2 beds) | _____ Add rollaway |
- (For suites, call the hotel direct)

Special Housing Requirements: Wheelchair accessible _____ Other _____

Arrival Day/Date _____ Time _____ a.m./p.m.

Departure Day/Date _____

GUARANTEED ROOM RESERVATION AUTHORIZATION:

- _____ Credit card information is provided below to guarantee my reservation.
 _____ My guarantee will be made directly to the hotel *after* I receive my hotel confirmation.

Please guarantee my room reservation with the following:

_____ American Express _____ Diners Club _____ Discover _____ MasterCard _____ VISA

NAME (as on credit card) _____

SIGNATURE _____

CARD NUMBER _____ EXP. DATE _____

NAMES OF OCCUPANTS:

1. _____ 3. _____
 2. _____ 4. _____

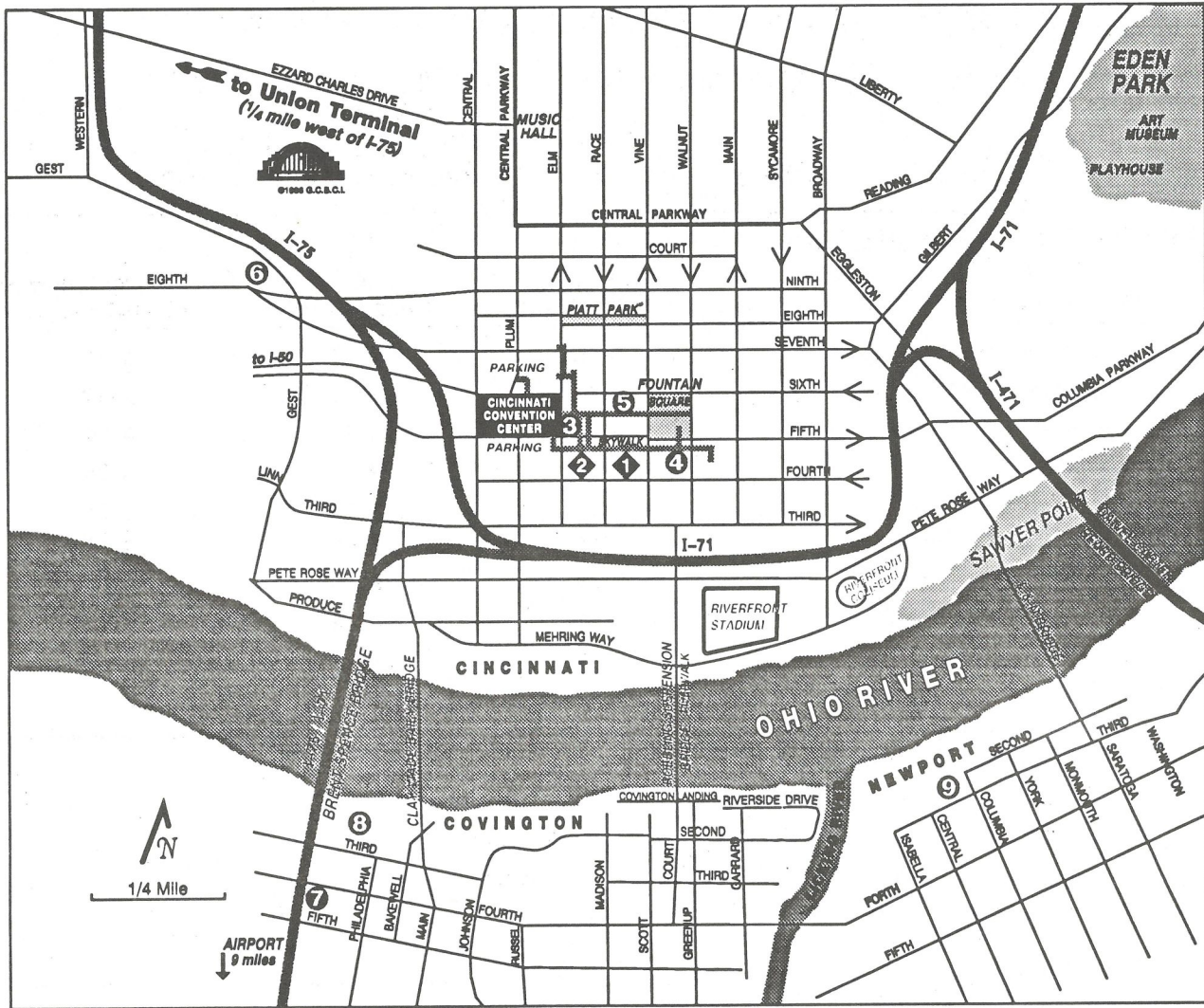
MAIL CONFIRMATION TO:

Name _____ Telephone () _____
 Address _____
 City _____ State _____ ZIP _____ Country _____

***** PLEASE DO NOT SEND CHECKS OR CASH WITH THIS FORM *****

Greater Cincinnati

(Numbers indicate hotel locations, keyed to Hotel Listing, p. 12)



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